SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept. Health & Human Services
Div of Environmental Health, 11 SHS
(207) 287-5672 Fax: (207) 287-4172

PROPERTY LOCATION

City, Town, or Plantation	LAMOINE
Street or Road	ROUTE 204
Subdivision, Lot #	

OWNER/APPLICANT INFORMATION

Name (last, first, MI): BROWN, REBECCA ■ Owner ☐ Applicant

Mailing Address of Owner/Applicant: 295 WALKER ROAD, LAMOINE, ME 04605

Daytime Tel. # (207)

OWNER OR APPLICANT STATEMENT
I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.

Rebecca 9-12-18
Signature of Owner or Applicant — Date

>> CAUTION: LPI APPROVAL REQUIRED <<

Town/City: lamoine Permit #: 1919

Date Permit Issued: 9/21/18 Fee: $265 Double Fee Charged [ ]

Local Plumbing Inspector Signature: [signature] L.P.I. #: 394

The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.

Municipal Tax Map # 4 Lot # 33

CAUTION: INSPECTION REQUIRED
I have inspected the installation authorized above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application. _____ (1st) date approved

_____ Local Plumbing Inspector Signature _____ (2nd) date approved

PERMIT INFORMATION

TYPE OF APPLICATION
■ 1. First Time System
☐ 2. Replacement System
Type replaced: _____
Year installed: _____
☐ 3. Expanded System
☐ a. ≤25% Expansion
☐ b. >25% Expansion
☐ 4. Experimental System
☐ 5. Seasonal Conversion

THIS APPLICATION REQUIRES
■ 1. No Rule Variance
☐ 2. First Time System Variance
☐ a. Local Plumbing Inspector Approval
☐ b. State & Local Plumbing Inspector Approval
☐ 3. Replacement System Variance
☐ a. Local Plumbing Inspector Approval
☐ b. State & Local Plumbing Inspector Approval
☐ 4. Minimum Lot Size Variance
☐ 5. Seasonal Conversion Permit

DISPOSAL SYSTEM COMPONENTS
■ 1. Complete Non-engineered System
☐ 2. Primitive System (graywater & alt. toilet)
☐ 3. Alternative Toilet, specify: _____
☐ 4. Non-engineered Treatment Tank (only)
☐ 5. Holding Tank, _____ gallons
☐ 6. Non-engineered Disposal Field (only)
☐ 7. Separated Laundry System
☐ 8. Complete Engineered System (2000 gpd or more)
☐ 9. Engineered Treatment Tank (only)
☐ 10. Engineered Disposal Field (only)
☐ 11. Pre-treatment, specify: _____
☐ 12. Miscellaneous Components

SIZE OF PROPERTY
7.5+/- ☐ SQ. FT. ■ ACRES

SHORELAND ZONING
☐ Yes ■ No

DISPOSAL SYSTEM TO SERVE
■ 1. Single Family Dwelling Unit, No. of Bedrooms: 2
☐ 2. Multiple Family Dwelling, No. of Units: _____
☐ 3. Other: _____ (specify)
Current Use ☐ Seasonal ☐ Year Round ■ Undeveloped

TYPE OF WATER SUPPLY
PROPOSED
■ 1. Drilled Well ☐ 2. Dug Well ☐ 3. Private
☐ 4. Public ☐ 5. Other

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

TREATMENT TANK
■ 1. Concrete
■ a. Regular
☐ b. Low Profile
☐ 2. Plastic
☐ 3. Other: _____
CAPACITY: 1000 GAL.

DISPOSAL FIELD TYPE & SIZE
■ 1. Stone Bed ☐ 2. Stone Trench
☐ 3. Proprietary Device
☐ a. cluster array ☐ c. Linear
☐ b. regular load ☐ d. H-20 load
☐ 4. Other: _____
SIZE: 800 ■ sq. ft. ☐ lin. ft.

GARBAGE DISPOSAL UNIT
■ 1. No ☐ 2. Yes ☐ 3. Maybe
If Yes or Maybe, specify one below:
☐ a. multi-compartment tank
☐ b. ___ tanks in series
☐ c. increase in tank capacity
☐ d. Filter on Tank Outlet

DESIGN FLOW
180 gallons per day
BASED ON:
■ 1. Table 4A (dwelling unit(s))
☐ 2. Table 4C (other facilities)
SHOW CALCULATIONS for other facilites
☐ 3. Section 4G (meter readings)
ATTACH WATER METER DATA

SOIL DATA & DESIGN CLASS
PROFILE CONDITION
B C
at Observation Hole # TP1
Depth 16"
of Most Limiting Soil Factor

DISPOSAL FIELD SIZING
☐ 1. Medium---2.6 sq. ft. / gpd
☐ 2. Medium---Large 3.3 sq. ft / gpd
■ 3. Large---4.1 sq. ft. / gpd
☐ 4. Extra Large---5.0 sq. ft. / gpd

EFFLUENT/EJECTOR PUMP
■ 1. Not Required (WITH PROPER 12" TANK ELEV.)
☐ 2. May Be Required
☐ 3. Required
Specify only for engineered systems:
DOSE: _____ gallons

LATITUDE AND LONGITUDE
at center of disposal area
Lat. 44 d 29 m. 08 s N
Lon. 68 d 18 m. 20 s W
if g.p.s, state margin of error: 30'

SITE EVALUATOR STATEMENT

I certify that on 8/31/18 (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).

[signature] #213 9/02/18
Site Evaluator Signature — SE # — Date

STEPHEN H. HOWELL (207) 825-4742
Site Evaluator Name Printed — Telephone Number — E-mail Address

Note : Changes to or deviations from the design should be confirmed with the Site Evaluator.

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Department of Health & Human Services
Division of Environmental Health
(207) 287-5672 Fax: (207) 287-3165

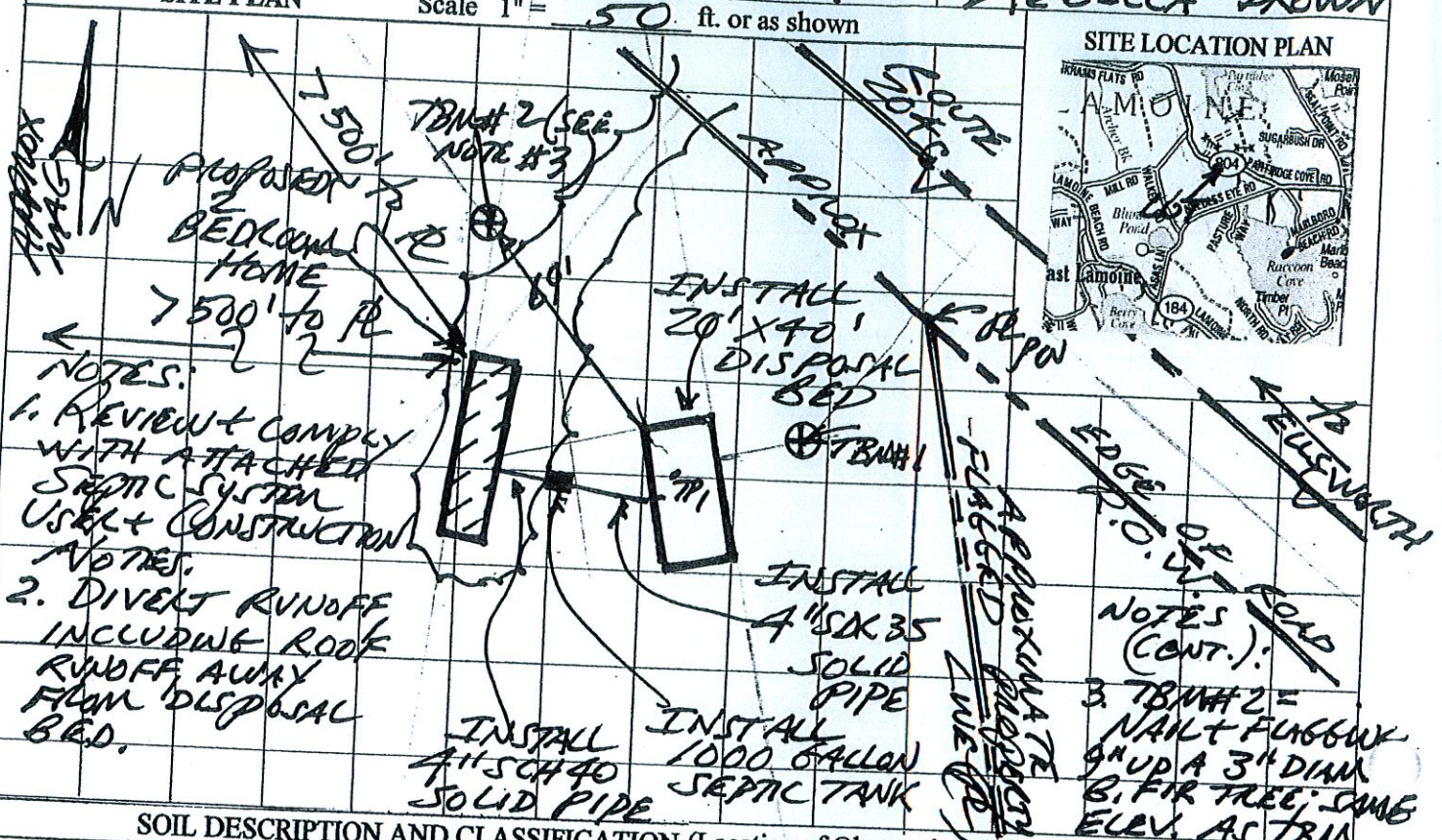
Town, City, Plantation: LAMOINE

Street, Road, Subdivision: ROUTE 204

Owner's Name: REBECCA BROWN

SITE PLAN

Scale 1" = 50 ft. or as shown



SITE LOCATION PLAN

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP1 ☒ Test Pit ☐ Boring

1 " Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0	VERY FINE SANDY LOAM	FRIABLE	BROWN	NONE
10			YELLOWISH BROWN	
20			LGT. OLIVE BROWN	
	SILT LOAM TO SILTY CLAY LOAM	FIRM TO V. FIRM	OLIVE TO OLIVE GRAY	MANY DISTINCT
30				
40	LIMIT OF OBSERV= 30"			
50				

Soil Classification	Slope	Limiting Factor	
8 C (Profile / Condition)	1-5%	16"	[X] Ground Water [X] Restrictive Layer [ ] Bedrock [ ] Pit Depth

Observation Hole _____ ☐ Test Pit ☐ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0				
10				
20				
30				
40				
50				

Soil Classification	Slope	Limiting Factor	
_____ _____ (Profile / Condition)	____ %	____ "	[ ] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

Site Evaluator Signature

#213
SE #

9/02/18
Date

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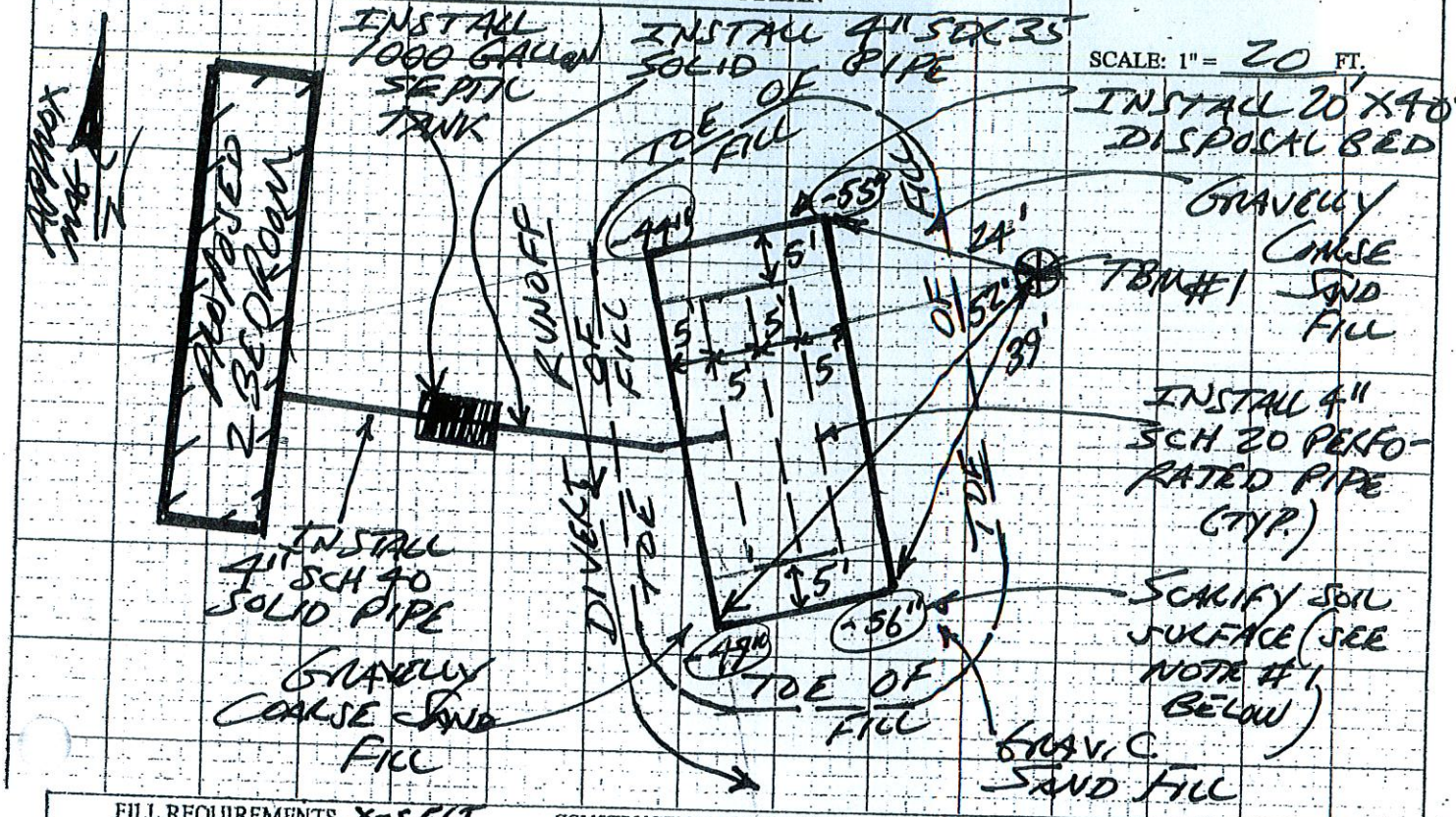
SUBSURFACE WASTEWATER DISPOSAL PLAN



FILL REQUIREMENTS: X-SECT A / B

Depth of Fill (Upslope): 20" / 25"

Depth of Fill (Downslope): 31" / 32"

CONSTRUCTION ELEVATIONS

-24" Finished Grade Elevation

-37" Top of Distribution Pipe or Proprietary Device

-48" Bottom of Disposal Area

ELEVATION REFERENCE POINT

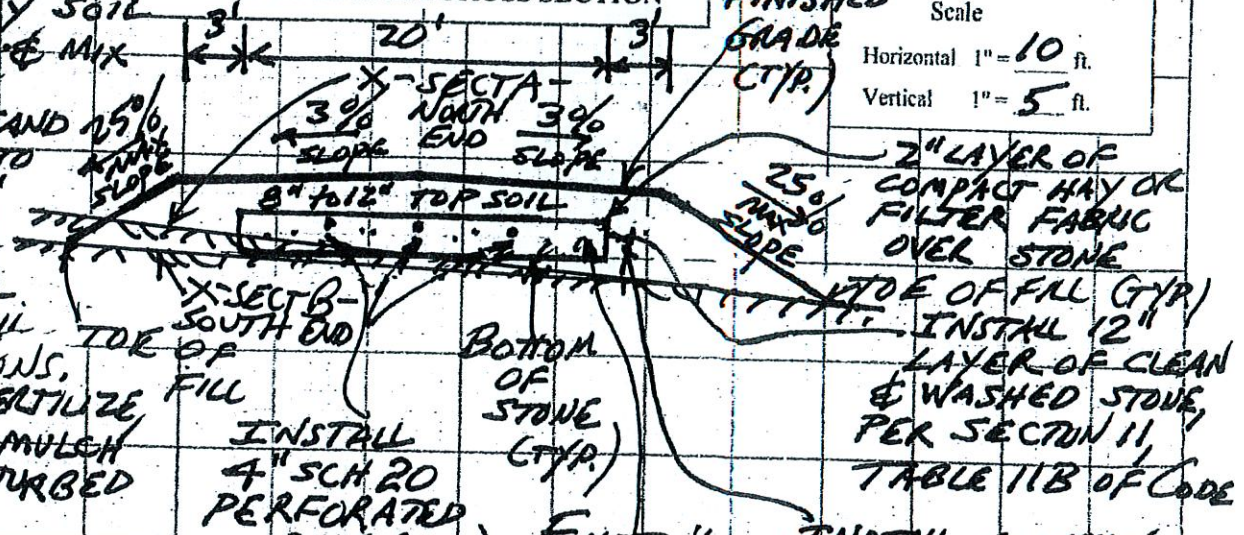
Location & Description: NAIL + FLAG SAT. 55" UP A 14" DIA RED MAPLE.

Reference Elevation: = 0" TREE

NOTES:

1. SCARIFY SOIL SURFACE & MIX GRAVELLY COARSE SAND FILL INTO UPPER 6" OF SOIL UNDER DISPOSAL BED & FILL EXTENSIONS.
2. LIME, FERTILIZE, SEED & MULCH ALL DISTURBED AREAS.
3. DISTRIBUTION LINES TO BE LEVEL.

DISPOSAL AREA CROSS SECTION



Scale

Horizontal 1" = 10 ft.

Vertical 1" = 5 ft.

Site Evaluator Signature

#213

SE #

9/02/18

Date

SECTION 11
QUALITY ASSURANCE AND QUALITY CONTROL

A. INSTALLATION

1. General: On sites with fine soil textures, excavations that expose the bottom and sidewall area of the disposal field must not be carried out when the soil moisture content is above the plastic limit, and except when correcting a nuisance, there is no practical alternative, the LPI agrees, and special construction techniques are used. The absolute plastic limit can be estimated by rolling the soil with the fingers. If the soil forms a wire or rod 1/8th of an inch in diameter and does not crumble when handled, the soil moisture content is too high to proceed with the excavation. Septic systems should not be installed when the seasonal water table is high, except in the circumstances listed within this subsection.

2. Dig Safe Law: The "Dig Safe Law" 23 M.R.S. § 3360-A places certain notification requirements on any person doing excavations. Excavation is broadly defined to mean any operation in which earth, rock or other material on or below the ground is moved or otherwise displaced by means of power tools, power equipment or explosives and including grading, trenching, digging, ditching, drilling, auguring, tunneling, scraping and cable or pipe driving, except tilling of the soil and gardening or agricultural purposes.

3. For a free Dig Safe in Maine information kit, contact the Maine Public Utilities Commission: 1-800-452-4699 http://www.state.me.us/mpuc or by email: maine.puc@maine.gov. (Contact information is accurate as of the effective date of these Rules.)

B. SITE PREPARATION

1. Site preparation requirements: Prior to the placement of any backfill material, the ground surface must be prepared as follows:

   (a) Soil erosion and sediment control: In areas adjacent to a water body or wetlands, preventative erosion and sediment control measures must be employed consistent with Section 11(M).

   (b) Clearing: Vegetation must be cut and removed from the area where backfill material is to be placed.

2. Grubbing: The area under the disposal area must have the organic soil horizon removed including but not limited to all stumps and roots.

3. Scarify the site: The area under the disposal area must be thoroughly roughened. If plowing is used, it must be done parallel to the topographic contour in such a direction that each plow furrow will be thrown up-slope. The soil should be broken up to a depth of 6 to 8 inches. Alternatively, a rototiller or the teeth of a backhoe or frost tooth may be used.

4. Transitional horizon: On sites where the backfill material is coarser than the original soil, a minimum of 4 inches of backfill material must be mixed into the original soil to form a transitional horizon beneath the disposal area.

5. Fill large holes: If large holes are left as a result of stump and/or stone and/or any removal of the "A" or "Ap" (plow layer) soil horizon these holes must be filled with suitable backfill material that meets the requirements of Section 11(E).

C. EXCAVATION

1. Excavation requirements: Any excavation required for the installation of a disposal field must comply with all the requirements in this Section.

2. Bottom of disposal field: The bottom of each disposal field must be installed at the elevation specified on the permit. It must be maintained to a level grade no greater than 2 inches within 100 feet. Note: The bottom of a disposal field serves as the final stage of the distribution network.

3. Avoid unnecessary compaction: Excavation must be carried out in a manner that will avoid unnecessary compaction of both sidewalls and bottom area. Heavy equipment, especially rubber-tired vehicles such as front-end loaders, should not be driven over the exposed bottom of the disposal field. Excavation should be carried out when possible, by a back-hoe operating from outside the perimeter of the previously excavated portions of the disposal fields.

4. Reopen smeared or compacted bottom or sidewall surfaces: If any portion of the bottom or sidewalls becomes smeared or compacted, that portion must be scarified to reopen soil pores. Roto-tilling may be necessary to reach the limit of compacted soil depth.

5. Weather conditions: Work should be scheduled so that excavated areas are not exposed to rainfall or wind-blown silt. Any loose soil or debris that is washed or otherwise deposited within the excavation must be carefully removed prior to backfilling. Additionally, disposal fields should not be installed in frozen ground or when the ambient air temperature is below freezing, especially if construction will take place over several days.

D. CONSTRUCTION

1. Construction: The installer of the system must make certain that the system and all its component parts are installed in conformance with the requirements of these Rules, the plan prepared by the site evaluator, and with any special engineering design requirements approved or required by the Department, pursuant to an approved variance.

2. Soil and backfill material: The installer of the system must make certain that the construction and installation are performed without adversely affecting the capacity of the soil or backfill material to adequately absorb or treat the septic tank effluent.

E. BACKFILL PLACEMENT FOR DISPOSAL AREAS INCLUDING FILL EXTENSIONS

1. General: Selection and placement of backfill must comply with the requirements of this Section.

2. Backfill standards: The backfill material must be gravelly coarse sand which meets the requirements of Table 11A or 11(E)(2)(a) below, as approved by the Department or LPI:

TABLE 11A
Backfill Textural Gradation

Sieve Size	Percent Passing by Weight
3 inches	100
#4	75-100
#10	50-100
#60	10-50
#100	2-20
#200	2-8
Clay Fraction	0-2

(a) Field determination of backfill: Due to the difficulty of obtaining sieve analyses and the variability of backfill material, the following procedures can be used in the field to determine the suitability of backfill material. The backfill is suitable if the soil texture is loose single grains, the individual sand grains can be readily seen (similar to salt or sugar grains) and felt, and the following conditions are observed: If squeezed in the hand when dry, it will fall apart when the pressure is released but has enough fines to stain the lines in the palm of the hand; or, if squeezed when moist, it will form a cast that will crumble when

2. Disposal field stone: The stone used in disposal fields must meet the following requirements:

(a) General: Where used, the stone must cover the distribution pipes and extend the full width and length of the disposal field.

(b) Thickness: The disposal field stone depth for beds must extend at least 7 inches beneath the bottom of the distribution pipes and must extend at least 1 inch above the top of the distribution pipes. For disposal trenches, disposal field stone depth must extend at least 12 inches beneath the bottom of the distribution pipes and must extend at least 1 inch above the top of the distribution pipes.

(c) The disposal field stone must be clean, uniform in size and free of fines, dust, ashes, or clay. It must conform to one of the nominal stone sizes listed in Table 11B.

(i) Stone specifications: A site evaluator may define a more stringent standard for stone size for any particular system.

(d) The disposal field stone may be loaded onto the disposal field site, using a back-hoe, front-end loader, or dump truck. This operation must be carried out from the sides of the disposal field, rather than by driving onto the prepared area of the disposal field. In the case of large disposal fields, tracked equipment may be operated within the disposal field. This equipment must not exert a ground pressure in excess of eight pounds per square inch. The disposal field stone must be pushed in front of the vehicle, such that a minimum of one foot of stone is maintained beneath the vehicle track and the original soil surface.

TABLE 11B
Maximum Percent passing by weight

Sieve Size	Nominal Stone Size	
	1 ½ inches	¾ inches
2 inches	100	100
1 ½ inches	95 - 100	100
¾ inches	0 - 40	90 - 100
½ inches	0 - 20	0 - 55
3/8 inches	0 - 8	0 - 25
#4	0 - 5	0 - 10
#200	0 - 2	0 - 2

3. Covering the disposal field stone: The disposal field stone must be covered with a layer of filter fabric or 2 inches of hay, as the laying of the distribution pipes progresses.

4. Covering the stone with filter fabric:

(a) Overlapping filter fabric sheets: Edges of adjacent sheets of fabric must be overlapped by a minimum of 6 inches; and

(b) Fabric requirements: The filter fabric specified in the system design must have: adequate tensile strength to prevent ripping during installation and backfilling, adequate air permeability to allow free passage of gases; and adequate particle retention to prevent downward migration of soil particles into the disposal field. The minimum physical properties for the fabric must be 4.0 ounces/square yard (per ASTM D-3776).

Construction Notes

1. Except where a variance request is approved by the LPI and/ or State, disposal bed to be a minimum of 100 feet from all wells, 300 feet from public water supplies, 10 feet from water supply lines, 50 feet from all minor watercourses, 100 feet from all major watercourses, 25 feet from drainage ditches, 10 feet side gradient from the edge of any curtain drains, 10 feet from property lines, 15 feet from buildings without a full foundation and 20 feet from buildings with a full foundation.

2. Except where a variance request is approved by the LPI and/ or State, septic tanks to be a minimum of 50 feet from potable water supplies for septic systems with design flows of less than 1000 gallons per day (GPD); 100 feet from potable water supplies for septic systems with design flows between 1000 and 2000 GPD; 150 feet from septic systems with design flows of more than 2000 GPD or public water supplies, 10 feet from water supply lines, 50 feet from all minor watercourses, 100 feet from all major watercourses, 25 feet from drainage ditches, 10 feet from property lines, and 8 feet from buildings.

3. Divert all roof runoff and surface runoff away from leach field.

4. Properly protect all pipes and tanks from freezing and/or crushing.

5. Review and comply with attached Septic System User Notes.

6. Clean and service septic tank filter as per manufacturer recommendations.

SEPTIC SYSTEM USER NOTES

1. This septic system has been designed to meet requirements of the State of Maine Subsurface Wastewater Disposal Rules, 10-144A CMR 241. Because site evaluators are not notified when local ordinances are enacted which exceed state requirements, it is the septic system owners responsibility to ensure that this septic system design (HHE-200 form) is in compliance with applicable local ordinances. This can be done by contacting your local plumbing inspector and asking about local ordinances which differ from those required in the Rules.

2. It is the septic system owner's responsibility to obtain any local, state, or federal permit(s) that may required for the installation of this septic system (work within or adjacent to a wetland may require a state and/or federal permit). Contact the Maine Department of Environmental Protection at 287-2111 and the Army Corps of Engineers at 623-8367 if you have any questions.

3. The use of a garbage grinder on a septic system is not recommended. Depending on use patterns, they can contribute a significant amount of particulate matter and grease to the system. Excessive use may result in premature failure. If a garbage grinder is to be used, additional septic tank capacity, a multi compartment septic tank, and/or more frequent septic tank pumping is recommended.

4. For new construction, it is recommended that the septic system owner install low volume toilets (1 1/2 gallons per flush or less) and other flow reducing fixtures such as low volume shower heads and faucets to minimize water consumption. A reduction in water usage will usually result in extended life of your septic system, all other things being equal.

5. It is the septic system owner's responsibility to limit water consumption and wastewater generation so that the septic system design capacity (design flow on the HHE-200 form) is not exceeded on any day. Activities which generate large amounts of wastewater should be spread out over several days where possible. Excessive use of a septic system on any day can cause the system to fail even though your use, average our over a week or month, is below design volume.

6. Do not connect floor or roof drains to a septic system. Your septic system is not designed to handle this water and it will likely cause premature failure.

7. Do not dispose of backwash from water softeners or water treatment devices in your septic system. Large amounts of water can be generated from these devices which can overload a septic system.

8. Do not dispose of any hazardous or toxic substances in a septic system such as paint thinner, paints, varnishes, photographic solutions, pesticides, insecticides, organic solvents or degreasers and drain openers. Septic systems depend on living organisms to function properly. Toxic or hazardous material can, in effect, "kill" the system and are a threat to pollute surface or groundwater resources. Instead of using a commercial degreaser or drain opener, which can be toxic, use one of the following:

   A. A plunger or mechanical snake; or
   B. Pour 1 handful of baking soda and 1/2 cup of white vinegar down the drain pipe and cover tightly for one minute. Repeat as necessary; or
   C. Pour 1/2 cup salt and 1/2 cup baking soda down the drain followed by 6 cups of boiling water. Let sit for several hours or overnight, then flush with water.

9. Do not dispose of any inert or non-biodegradable substances into your septic system such as disposable diapers, cat box litter, coffee grounds, cigarette filter, sanitary napkins, facial tissues and wet strength paper towels.

10. Do not dispose of large quantities of fats or grease into your septic system unless an external grease

trap has been designed for that purpose. Generally, an internal grease trap is inadequate to handle excessive amounts of grease or fat.

11. Do not add any septic tank cleaner or additive to your septic system to improve its function or prolong its useful operating life (this includes yeast, horse manure or commercial products). No effective product or material is recognized by State authorities and, in fact, some of these products can actually cause your septic system to fail.

12. Maintain your septic system by regularly having the septic tank pumped. Some biological breakdown of solids and grease occurs in septic tanks but the rate of accumulation virtually always exceeds the rate of biologic breakdown. If your septic tank is not pumped out often enough, solids and greases may buildup to the point where they enter your disposal ares. Once this material reaches the disposal area it will clog the soil surface and likely cause premature failure.

I recommend having your septic tank pumped or inspected after one year of use. The pumper can advise you of how often you need to have the septic tank pumped based on what he finds at this inspection (typically a septic tank will need to be pumped every two to five years). Keep in mind that you will need to adjust pumping frequency to coincide with changes in the way you use your system. The more your septic system is used, the more frequently that the septic tank should be pumped.

13. Do not drive over or store heavy materials on any part of your septic system unless it is specifically designed to handle heavy loads. Otherwise, crushed components may be the result and the system may fail.

14. Divert all surface water away from the septic tank and disposal area. Roof areas which contribute runoff water to the septic system site should have gutters installed to divert that water to another location.

15. PLEASE - If you have any questions about your septic system or how to use if, call me (825-4528) and ask for advice. You can also call the State Agency responsible for regulating septic systems, the plumbing program in the Division of Health Engineering, at 287-5672.